ABSTRACT OF THE DISCLOSURE

Computer-implemented methods, programs and apparatus for generating a library design for a combinatorial library of materials. A library design includes a set of sources representing components to be used in preparing the combinatorial library, destinations

5   representing arrangements of cells and mappings, defining one or more distribution patterns for assigning components to cells in the destination arrangement or arrangements. Mappings include gradients and sets of user-defined equations, and are used to calculate the amount of one or more components to be assigned to a cell or cells in an arrangement. A library design can also include one or more process parameters defined to vary over time or across a

10   plurality of destination cells. The invention outputs a data file defining the library design, including electronic data representing the sources, the destinations and the mapping, in a format suitable for implementing manually or using automated material handling apparatus.

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